

**REMARKS**

Claims 1-5, 7-12, 14-18, 20, 21, 23, and 24 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by, or, in the alternative, under 35 U.S.C. § 103(a) as allegedly being obvious over Nagata et al. (US 6,624,857), and claims 6, 13, and 19 stand rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Nagata et al. (US 6,624,857). Applicants respectfully assert that the Office Action completely fails to establish any resemblance of a *prima facie* case of obviousness, or anything resembling an anticipatory rejection of Applicants' claimed invention.

Applicants' comments are directed toward the body of the rejections under 35 U.S.C. §§ 102(e) and/or 103(a), as well as the Examiner's comments provided at page 4 of the Final Office Action under the heading "Response to Arguments." Accordingly, Applicants respectfully assert that the Examiner's interpretation of Applicants' claimed invention, as it may pertain to Nagata et al., may be found at page 4 of the Final Office Action.

First, at Section 5(a) of the Final Office Action, the Examiner alleges that:

"Applicants are directed to Nagata et al. which disclose the inspection use TFTs including resistive element to avoid static-electricity breakdown (paragraph bridging col. 5 and 6, col. 21, ln 46-51, col. 38, ln. 41-52)."

However, as reproduced below, Nagata et al. is completely silent with regard to that which the Final Office Action alleges. For example, Nagata et al., from col. 5, line 63 to col. 6, line 4, discloses:

A third object of the present invention is to prevent the voltage applied to the data lines or the scanning lines from being decreased by a voltage drop in the inspection-use wiring for supplying the inspection-use signals to the data lines or the scanning lines when inspecting the liquid crystal display panel, in an active-matrix-type liquid crystal display panel including a resistive element between the data lines or the scanning lines so as to avoid the static-electricity breakdown.

Thus, Applicants respectfully assert that the passage relied upon by the Final Office Action fails to teach or suggest anything related to the feature of “a plurality of common voltage lines connected to the data lines and the gate lines through a plurality of static electricity preventing units,” wherein “at least one of the static electricity preventing units is directly connected to the source driver,” as required by independent claims 1, 8, 14, 20, and 23. Specifically, the above-reproduced passage of Nagata et al. merely recites that a resistive element may be disposed between the data lines “so as to avoid the static-electricity breakdown,” or a resistive element may be disposed between the scanning lines “so as to avoid the static-electricity breakdown.”

Applicants respectfully direct the Examiner’s attention to at least FIGs. 21-25 and columns 40-43 of Nagata et al., i.e., Embodiment 8, to disclose the use of resistive elements between the data lines or between the scanning lines. However, as explicitly disclosed by Nagata et al., none of the resistive elements provide for “a plurality of common voltage lines connected to the data lines and the gate lines through a plurality of static electricity preventing units,” as required by independent claims 1, 8, 14, 20, and 23. Thus, the passage relied upon by the Final Office Action to allege that Nagata et al. discloses Applicants’ claimed “static preventing units” is actually completely silent with regard to the combination of features set forth by independent claims 1, 8, 14, 20, and 23.

Second, at Section 5(b) of the Final Office Action, the Examiner alleges that:

“Nagata et al. do disclose that the static electricity preventing unit (46) is directly connected to the gate/source driver (col. 22, lines 6-7).”

However, Nagata et al., at col. 22, lines 6-7, discloses:

Although the explanations were made on the side of the data line 3, it is needless to say that the side of the scanning line 2 is similar. Further, in FIG. 1, the inspection-use control signal line 24 on the side of the scanning line 2 crosses the scanning line 2. However, depending on the magnitude of the electrostatic capacity between the inspection-use control signal line 24 and the scanning line 2, arranging the inspection-use control signal line 24 not to cross the scanning line is effective.

Applicants respectfully assert that the disclosure by Nagata et al. that “the side of the scanning line 2 is similar” fails to provide any teaching or suggestion for placing either the resistive elements or the input protection circuit of Nagata et al. “directly connected to the source driver,” as required by independent claims 1, 8, 14, 20, and 23. More specifically, the above-reproduced passage of Nagata et al. relied upon by the Examiner is related to placement of the inspection-use TFTs 26a and 26b and the inspection-use display signal lines 21, and is completely unrelated to the placement of either the resistive elements or the static electricity preventing unit of Nagata et al. to be “directly connected to the source driver,” as required by independent claims 1, 8, 14, 20, and 23. Thus, the passage of Nagata et al. relied upon by the Final Office Action to allege that Nagata et al. discloses Applicants’ claimed “static preventing units” is completely silent with regard to the combination of features set forth by independent claims 1, 8, 14, 20, and 23.

Third, at Section 5(c) of the Final Office Action, the Examiner alleges that:

“[g]rounding method is used to prevent the static electricity in the circuitry. Therefore, one of skilled in the art would be able to understand the word ‘interchangeable’ between source and gate as grounding to source or gate driver to discharge the static electricity. In other words, it is a common practice in the art discharging the static electricity through the gate and/or source driver(s). See also Ha (US 6,493,0047), figure 5, as evidenced to show a prevent element can be directly connected to source driver.”

Applicants respectfully assert that the above-reproduced allegation by the Examiner includes numerous statements unsupported by the record. First, the allegation that “one of skilled in the art would be able to understand the word ‘interchangeable’ between source and gate as grounding to source or gate driver to discharge the static electricity” is clearly unsupported by any of the prior art of record. In addition, the Examiner provides no documentary evidence of such a condition. As set forth by MPEP 2144.03(A):

While “official notice” may be relied on, these circumstances should be rare when an application is under final rejection or action under 37 CFR 1.113.

Accordingly, Applicants respectfully assert that the implied “Official Notice” alleged by the Examiner to make-up for the deficiencies of Nagata et al. is clearly improper since the Examiner has completely failed to provide any documentary evidence to demonstrate that “one of skilled in the art would be able to understand the word ‘interchangeable’ between source and gate as grounding to source or gate driver to discharge the static electricity.” Thus, Applicants respectfully assert that the Examiner has improperly taken “Official Notice” with regard to the alleged interchangeability of gate and source drivers for discharging static electricity.

However, although Ha may disclose the use of an ESD prevention circuit connected to an input pad of a data driving circuit, Ha clearly fails to teach or suggest “a plurality of common voltage lines connected to the data lines and the gate lines through a plurality of static electricity preventing units,” as required by independent claims 1, 8, 14, 20, and 23. In addition, Ha clearly fails to teach or suggest “wherein at least one of the static electricity preventing units is directly connected to the source driver,” as required by independent claims 1, 8, 14, 20, and 23. Accordingly, Applicants respectfully assert that the implied “common knowledge” or “Official Notice” set forth by the Examiner by citing Ha fails to remedy the deficiencies of Nagata et al., as detailed above.

Second, Applicants respectfully assert that the Examiner’s citation of Ha to support the allegation that “it is common practice in the art discharging the static electricity though the gate and/or source drivers(s)” actually constitutes a rejection under 35 U.S.C. § 103(a) in view of Ha. Specifically, Applicants respectfully assert that the Examiner is citing Ha for remedying the deficiencies of Nagata et al. with regard to connecting an ESD device directly to a source/gate driver. Thus, Applicants respectfully assert that the Examiner is actually making a rejection under 35 U.S.C. § 103(a) over Nagata et al. and Ha, and not simply making a rejection using Nagata et al. alone.

However, since the subject matter of Ha and Applicants’ present invention were, at the time the invention was made, commonly owned by LG.Philips LCD Co., Ltd., then Applicants respectfully assert that Ha cannot preclude patentability of Applicants’ claimed invention under 35 U.S.C. § 103(c). Thus, Applicants respectfully assert that the documentary evidence provided by the Examiner actually conclusively proves that Applicants’ claimed invention is not *prima facie* obvious.

Third, Applicants respectfully assert that Ha fails to teach or suggest the “interchangability” of source and gate drivers of an LCD device for discharging static electricity. Specifically, Applicants respectfully assert that Ha explicitly discloses that both the gate driving circuit and data driving circuit are connected to ESD prevention circuits, and fails to teach or suggest how the gate and data driving circuits are each “interchangeable” for discharging static electricity. Accordingly, Applicants respectfully assert that Ha is completely silent with regard to how “one of skilled in the art would be able to understand the word ‘interchangeable’ between source and gate as grounding to source or gate driver to discharge the static electricity,” as alleged by the Examiner. Thus, the Final Office Action fails to: (1) remedy the admitted deficiencies of Nagata et al.; (2) establish that source and data drivers may be interchanged for discharging static electricity; and (3) establish a *prima facie* case of obvious with regard to at least independent claims 1, 8, 14, 20, and 23.

Lastly, Applicants respectfully assert that Nagata et al. explicitly discloses that:

Originally, since the inspection-use TFT 26a makes no contribution to the display after the display device is completed, the ratio of non-defective units is not allowed to depend on these inspection-use TFTs 26a. Namely, it is required that even if there is defectiveness in the inspection-use TFTs 26a, the display device should be shipped as a non-defective unit. In order to meet this requirement, the inspection-use TFTs 26a must be designed so that they can be easily cut off. Therefore, providing the inspection-use TFTs 26a on the opposite side of the source driver 20a is effective.

Accordingly, Applicants respectfully assert that the inspection-use TFTs 26a and 26b of Nagata et al. are not any type of ESD devices or “static electricity preventing units,” as claimed, and are specifically and functionally designed to not remain as a part of the LCD device. Specifically, Nagata et al. explicitly requires that the inspection-use TFTs 26a

“must be designed so that they can be easily cut off.” Thus, Nagata et al. only discloses the use of a single input protection circuit 46, and thus, fails to teach or suggest “a plurality of common voltage lines connected to the data lines and the gate lines through a plurality of static electricity preventing units,” as required by independent claims 1, 8, 14, 20, and 23, and hence dependent claims 2-7, 9-13, 15-19, 21, and 24.

For at least the above reasons, Applicants respectfully assert that the rejections under 35 U.S.C. § 102(e) and/or § 103(a) should be withdrawn because Nagata et al. neither teaches nor suggests the novel combination of features recited in independent claims 1, 8, 14, 20, and 23, and hence dependent claims 2-7, 9-13, 15-19, 21, and 24.

### **CONCLUSION**


In view of the foregoing, Applicants respectfully request reconsideration and timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of the response, the Examiner is invited to contact the Applicants’ undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an

extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

**MORGAN, LEWIS & BOCKIUS LLP**

By:   
David B. Hardy  
Reg. No. 47,362

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**CUSTOMER NO. 09629**  
**MORGAN, LEWIS & BOCKIUS LLP**  
1111 Pennsylvania Avenue, N.W.  
Washington, D.C. 20004  
Telephone: (202) 739-3000